

emission control systems on the portion of these vehicles subject to the evaporative emission test requirements of § 86.130-96, and/or the refueling emission test requirements of § 86.151-98, is defined as a period of use of 10 years or 100,000 miles, whichever occurs first.

(2) For light light-duty trucks subject to the Tier 0 standards of § 86.094-9(a), and for heavy light-duty truck engine families, intermediate and/or full useful life. Intermediate useful life is a period of use of 5 years or 50,000 miles, whichever occurs first. Full useful life is a period of use of 11 years or 120,000 miles, whichever occurs first. The useful life of evaporative emission and/or refueling control systems on the portion of these vehicles subject to the evaporative emission test requirements of § 86.130-96, and/or the refueling emission test requirements of § 86.151-98, is also defined as a period of 11 years or 120,000 miles, whichever occurs first.

(3) For an Otto-cycle HDE family:

(i) For hydrocarbon and carbon monoxide standards, a period of use of 10 years or 110,000 miles, whichever first occurs.

(ii) For the oxides of nitrogen standard, a period of use of 10 years or 110,000 miles, whichever first occurs.

(iii) For the portion of evaporative emission control systems subject to the evaporative emission test requirements of § 86.1230-96, a period of use of 10 years or 110,000 miles, whichever first occurs.

(4) For a diesel HDE family:

(i) For light heavy-duty diesel engines, for carbon monoxide, particulate, and oxides of nitrogen plus non-methane hydrocarbons emissions standards, a period of use of 10 years or 110,000 miles, whichever first occurs.

(ii) For medium heavy-duty diesel engines, for carbon monoxide, particulate, and oxides of nitrogen plus non-methane hydrocarbons emissions standards, a period of use of 10 years or 185,000 miles, whichever first occurs.

(iii) For heavy heavy-duty diesel engines, for carbon monoxide, particulate, and oxides of nitrogen plus non-methane hydrocarbon emissions standards, a period of use of 10 years or 435,000 miles, or 22,000 hours, whichever first occurs, except as provided in para-

graphs (4)(iv) and (4)(v) of this definition.

(iv) The useful life limit of 22,000 hours in paragraph (4)(iii) of this definition is effective as a limit to the useful life only when an accurate hours meter is provided by the manufacturer with the engine and only when such hours meter can reasonably be expected to operate properly over the useful life of the engine.

(v) For an individual engine, if the useful life hours limit of 22,000 hours is reached before the engine reaches 10 years or 100,000 miles, the useful life shall become 10 years or 100,000 miles, whichever occurs first, as required under Clean Air Act section 202(d).

(5) As an option for both light-duty trucks under certain conditions and HDE families, an alternative useful life period may be assigned by the Administrator under the provisions of § 86.094-21(f).

*Warranty period*, for purposes of HDE emissions defect warranty and emissions performance warranty, shall be a period of 5 years/50,000 miles, whichever occurs first, for Otto-cycle HDEs and light heavy-duty diesel engines. For all other heavy-duty diesel engines the aforementioned period shall be 5 years/100,000 miles, whichever occurs first. However, in no case may this period be less than the basic mechanical warranty period that the manufacturer provides (with or without additional charge) to the purchaser of the engine. Extended warranties on select parts do not extend the emissions warranty requirements for the entire engine but only for those parts. In cases where responsibility for an extended warranty is shared between the owner and the manufacturer, the emissions warranty shall also be shared in the same manner as specified in the warranty agreement.

[62 FR 54720, Oct. 21, 1997, as amended at 65 FR 59945, Oct. 6, 2000; 66 FR 5159, Jan. 18, 2001]

**§ 86.004-9 Emission standards for 2004 and later model year light-duty trucks.**

Section 86.004-9 includes text that specifies requirements that differ from § 86.097-9, § 86.099-9, § 86.000-9 or § 86.001-9. Where a paragraph in § 86.097-9,

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§ 86.099–9, § 86.000–9 or § 86.001–9 is identical and applicable to § 86.004–9, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.097–9.” or “[Reserved]. For guidance see § 86.099–9.” or “[Reserved]. For guidance see § 86.000–9.” or “[Reserved]. For guidance see § 86.001–9.”

(a)(1) introductory text through (a)(1)(iii) [Reserved]. For guidance see § 86.097–9.

(a)(1)(iv)–(b)(4) [Reserved]. For guidance see § 86.099–9.

(b)(5) [Reserved]

(b)(6) [Reserved]. For guidance see § 86.001–9.

(c) [Reserved]. For guidance see § 86.097–9.

(d) Refueling emissions from 2004 and later model year gasoline-fueled and methanol-fueled Otto-cycle and petroleum-fueled and methanol-fueled diesel-cycle light-duty trucks shall not exceed the following standards. The standards apply equally to certification and in-use vehicles.

(d)(1)–(d)(2)(ii) [Reserved]. For guidance see § 86.001–9.

(d)(2)(iii) Heavy-duty vehicles certified as light-duty trucks under the provisions of § 86.085–1 shall comply with the provisions of § 86.001–9 (d)(1)(i) and (ii).

(3)(i) All light-duty trucks of a GVWR equal to 6,000 pounds or less (100%) must meet the refueling emission standard.

(ii) A minimum of the percentage shown in table A04–09 of a manufacturer’s sales of the applicable model year’s gasoline- and methanol-fueled Otto-cycle and petroleum-fueled and methanol-fueled diesel-cycle light-duty trucks of 6,001 to 8,500 pounds GVWR shall be tested under the procedures in subpart B of this part indicated for 2004 and later model years, and shall not exceed the standards described in § 86.001–9 (d)(1). Vehicles certified in accordance with § 86.001–9 (d)(2)(ii), as determined by the provisions of § 86.001–28(g), shall not be counted in the calculation of the percentage of compliance:

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TABLE A04–09—IMPLEMENTATION SCHEDULE FOR LIGHT-DUTY TRUCK REFUELING EMISSION TESTING

Model year	Sales percentage
2004 .....	40
2005 .....	80
2006 and subsequent .....	100

(e) [Reserved]. For guidance see § 86.000–9.

(f) [Reserved]

(g)–(k) [Reserved]. For guidance see § 86.097–9.

[61 FR 54889, Oct. 22, 1996]

### § 86.004–11 Emission standards for 2004 and later model year diesel heavy-duty engines and vehicles.

This section applies to 2004 and later model year diesel HDEs.

(a)(1) Exhaust emissions from new 2004 and later model year diesel HDEs shall not exceed the following:

(i)(A) Oxides of Nitrogen plus Non-methane Hydrocarbons (NO<sub>x</sub> +NMHC) for engines fueled with either petroleum fuel, natural gas, or liquefied petroleum gas, 2.4 grams per brake horsepower-hour (0.89 gram per megajoule), as measured under transient operating conditions.

(B) Oxides of Nitrogen plus Non-methane Hydrocarbon Equivalent (NO<sub>x</sub>+NMHCE) for engines fueled with methanol, 2.4 grams per brake horsepower-hour (0.89 gram per megajoule), as measured under transient operating conditions.

(C) *Optional standard.* Manufacturers may elect to certify to an Oxides of Nitrogen plus Non-methane Hydrocarbons (or equivalent for methanol-fueled engines) standard of 2.5 grams per brake horsepower-hour (0.93 gram per megajoule), as measured under transient operating conditions, provided that Non-methane Hydrocarbons (or equivalent for methanol-fueled engines) do not exceed 0.5 grams per brake horsepower-hour (0.19 gram per megajoule) NMHC (or NMHCE for methanol-fueled engines), as measured under transient operating conditions.

(D) A manufacturer may elect to include any or all of its diesel HDE families in any or all of the emissions ABT